

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,443	03/30/2004	Vishal Sarin	2102397-992980	5465
26379	7590 04/21/2006		EXAMINER	
	R RUDNICK GRAY CAR	LUU, PHO M		
2000 UNIVERSITY AVENUE E. PALO ALTO, CA 94303-2248			ART UNIT	PAPER NUMBER
	•		2824	
			DATE MAILED: 04/21/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	κ,
M	X
·	O

	Application No.	Applicant(s)		
	10/814,443	SARIN ET AL.		
Office Action Summary	Examiner	Art Unit		
	Pho M. Luu	2824		
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address		
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION  16(a). In no event, however, may a reply be tim  rill apply and will expire SIX (6) MONTHS from a  cause the application to become ABANDONE	l. the mailing date of this communication. (35 U.S.C. § 133).		
Status				
1) Responsive to communication(s) filed on	_•			
Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	3 O.G. 213.		
Disposition of Claims				
<ul> <li>4) ☐ Claim(s) 1-10 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdraw</li> <li>5) ☐ Claim(s) 2-10 is/are allowed.</li> <li>6) ☐ Claim(s) 1 is/are rejected.</li> <li>7) ☐ Claim(s) is/are objected to.</li> <li>8) ☐ Claim(s) are subject to restriction and/or</li> </ul>				
Application Papers				
9) ☐ The specification is objected to by the Examine 10) ☑ The drawing(s) filed on 30 March 2004 is/are: a Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction 11) ☐ The oath or declaration is objected to by the Examine 11.	a) accepted or b) objected to drawing(s) be held in abeyance. See on is required if the drawing(s) is obj	ected to. See 37 CFR 1.121(d).		
Priority under 35 U.S.C. § 119				
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Application ity documents have been receive (PCT Rule 17.2(a)).	on No d in this National Stage		
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date	4) Interview Summary ( Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other: <u>Updated Seal</u>	te atent Application (PTO-152)		

Art Unit: 2824

## **DETAILED ACTION**

1. Acknowledgment is made of applicant's Amendment, filed 27 January 2006. The changes and remarks disclosed therein were considered.

2. Claims 1-10 are pending in the application.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Bill et al. (US. 6,046,932).

Regarding claim 1, Bill et al in figure 1 discloses a method for programming a memory cell comprising:

applying an incremental current ( $\Delta V = R_{Bitline} \times I_{Bitline}$ ) to selected memory cells (202, 210) during programming of the selected memory cells (input voltage Program/APDE coupled to word line WL0 through Logic 218, $\Delta V = R_{Bitline} \times I_{Bitline}$  and the bitline 216 selected for selected memory cell 202 during a program, see column 6, lines 30-33 and lines 49-58), the incremental current being substantially equal to leakage current from the selected memory cells (also, see column 6, lines 30 through-column 4, lines 4).



Art Unit: 2824

1

## Allowance

5. Claims 2-10 is allowed.

The following is an examiner's statement of reasons for allowance:

There is no teaching or suggestion in the prior art to provide:

"detecting a leakage current on the bitline of the second memory array and applying an incremental current to the bitlines of the first memory array substantially equal to the detected current during programming of the first memory array" as claimed in the independent claim 2; or

"a second circuit coupled to the bitline of the second memory array to measure current on the bitline and a current source coupled to the bitline of the first memory array to provide a current thereto in response to the detected current on the bitline of the second memory array" as claimed in the independent claim 3. Claims 4-9 are also allowed because of their dependency on claim 3; or

"a current source having an output for providing a first current in a first mode and having a second output to provide a second current to a bitline of the first memory array in a second mode" as claimed in the independent claim 10.

## Conclusion

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Pho M. Luu whose telephone number is 571.272.1876. The examiners can normally be reached on M-F 8:00AM – 5:00PM.

Application/Control Number: 10/814,443 Page 4

Art Unit: 2824

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Richard Elms, can be reached on 571.272.1869. The official fax number for the organization where this application or proceeding is assigned is 703.872.9306 for all official communications.

The information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see

http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PML

12 April 2006

RICHARD ELMS
SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800